

DETAILED ACTION

1. Any rejections and/or objections made in the previous Office action and not repeated below are hereby withdrawn.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office Action.
3. The grounds of rejection set forth below for claims 3-5, 8-11, and 22 are the same as those set forth in the previous Office action mailed on 26 February 2009. For this reason, the present action is properly made final.

Claim Rejections - 35 USC § 102

4. Claims 4, 5, and 8-11 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent Application Publication No. 2003/0149205 (herein "Callais")
5. This rejection was adequately set forth in paragraphs 21-24 of the Office action mailed on 26 February 2009, and is incorporated here by reference.
6. Regarding the present limitation of claim 4 that the polymerization is performed in the absence of free nitroxide, it is noted that Callais discloses catalysts according to the present claims. Because the catalysts of Callais are the same as those presently claimed, they must possess the presently recited properties, including the property that the catalysts will not generate free nitroxide. Case law holds that a product and its

Art Unit: 1796

properties are inseparable. In re Spada, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). In re Papesch, 315 F.2d 381, 391, 137 USPQ 43, 51 (CCPA 1963).

Claim Rejections - 35 USC § 103

7. Claims 3 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Application Publication No. 2003/0149205, as applied above.

8. This rejection was adequately set forth in paragraphs 28-29 of the Office action mailed on 26 February 2009, and is incorporated here by reference.

9. Claims 3-5, 8-11, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,569,967 (herein "Couturier") in view of US Patent No. 5,763,548 (herein "Matyjaszewski").

10. This rejection was adequately set forth in paragraphs 31-34 of the Office action mailed on 26 February 2009, and is incorporated here by reference.

Response to Amendment

11. Applicant's cancellation of claims 2, 6, 7, 12-16, 21, and 23 is acknowledged. Claims 3-5, 8-11, and 23 are pending. Applicant's amendment of claim 3 to write the claim in independent form, and to include a period at the end of the sentence, is acknowledged. Applicant's amendment of claim 4 to recite "in the absence of free

Art Unit: 1796

nitroxide”, with support from paragraph 32 of the specification, is acknowledged. Applicant’s amendment of claim 5 to remove alternative selections of the R^2 group is acknowledged. Applicant’s amendment of the abstract, with support from the previously filed claims, is acknowledged.

Response to Arguments

12. Applicant's arguments filed 25 June 2009 (herein “Remarks”) have been fully considered and they are persuasive in part.

13. Regarding the objection to the abstract: Applicant argues (page 6 of Remarks) that the new abstract overcomes the objection previously set forth. The new abstract is sufficient in length, and therefore the objection has been withdrawn.

14. Regarding the objections to claims 2, 3, 6, and 7: Applicant argues (page 6 of Remarks) that the present amendment of claim 3 to include a period at the end of the sentence overcomes the objection. Claims 2, 6, and 7 are cancelled. This argument is persuasive, and therefore the objection has been withdrawn.

15. Regarding the objections to claims 5 and 7 for failing to further limit their base claim: Claim 7 has been cancelled. Applicant argues (page 6 of Remarks) that the present amendment of claim 5 to remove alternative selections of the R^2 group

Art Unit: 1796

overcomes the objection. The presently recited R^2 groups fall within the scope of base claim 4. Therefore, the objection has been withdrawn.

16. Regarding the double patenting rejections: Applicant filed four terminal disclaimers on 25 June 2009, thereby obviating the rejections over US Pat Nos. 7,199,214; 7,214,810, and applications nos. 11,692,377 and 11/596,306.

17. Regarding the rejection of claims 5 and 7 under 35 USC 102(b) as anticipated by Mercier: Applicant argues (page 7 of Remarks) that Mercier fails to anticipate the claims. Claim 7 is cancelled. It is noted that the rejection inadvertently referred to Table 3 of Mercier, rather than Table 2. However, Applicant's amendment of claim 5 to remove alternative selections of the R^2 group has overcome the reference. Therefore, the rejection has been withdrawn.

18. Regarding the rejection of claims 1, 2, and 4-16 under 35 USC 102(e) as anticipated By Callais: Applicant argues (pages 7-8 of Remarks) that Callais fails to anticipate the present claims because Callais is limited to a process that produces polymer solutions having a specific level of solids and viscosity, whereas the present invention is not so limited. However, the present claims do not contain any limitations that would distinguish the present invention from that of Callais. The fact that Callais may disclose certain properties, effects, embodiments, or intended uses for the invention which are not specifically recited in the present claims does render the

reference non-anticipatory. If the reference meets all of the limitations of the present claims, then the claims are anticipated. Because Callais discloses catalysts and polymerization methods within the scope of the present claims, the present claims are properly anticipated by Callais.

19. Applicant similarly argues that the process of the present invention may include catalysts wherein the R^2 group is phenyl, alkali metal, or ammonium salts, and that Callais fails to disclose such groups. However, the present claims also include the R^2 group as hydrogen, and as Applicant has admitted, Callais does disclose this group (see paragraph 27 of Callais: "...and R''_{22} may also be hydrogen"). Although Callais may not anticipate every species within the scope of the present claims, Callais does anticipate at least the species in which $R^2=H$. It is noted that a prior art species will anticipate a claim to a genus which encompasses that species, including a Markush group that encompasses that species (MPEP 2132.02). Therefore, Applicant's arguments that Callais fails to anticipate the present claims is found unpersuasive.

20. Regarding the rejection of claims 1-20 under 35 USC 103(a) as unpatentable over Couturier in view of Matyjaszewski: Applicant argues (page 8 of Remarks) that the combination of Couturier with Matyjaszewski would comprise some form of the alkoxyamines of Couturier with some form of the brominated carboxylic acids as recited in Matyjaszewski. Applicants further argue that such a combination would not render obvious the present compounds which are devoid of bromine.

21. Couturier teaches that the catalysts used therein are prepared by an ATRA process (see col 2 line 34), which entails reacting a nitroxide (e.g., see DEPN at col 3 line 5) with various brominated compounds (see examples) and a copper compound to mediate the reaction (e.g. see CuBr throughout Couturier). Therefore, utilizing a brominated carboxylic acid as taught by Matyjaszewski for the ATRA process of Couturier would lead to the presently recited catalysts. That is to say, the “some form of the alkoxyamines of Couturier with some form of the brominated carboxylic acids as recited in Matyjaszewski” is not merely a mixture of these two chemicals, but rather is the same catalysts that are presently recited. The bromine atom of the brominated carboxylic acid would be removed from the carboxylic acid when it reacts with the copper compound which is employed in the ATRA process of Couturier, and the bromine atom would therefore not be present in the final catalyst. Therefore, the catalysts made by the process of Couturier, using a brominated carboxylic acid as taught by Matyjaszewski, would not possess a bromine atom. It is therefore evident that the combination of Couturier with Matyjaszewski would lead to the presently recited catalysts.

22. Regarding the rejection of claims 1-20 under 35 USC 103(a) as unpatentable over Couturier: Upon reconsideration of the reference, it is noted that Couturier does not reasonably disclose or suggest catalyst compounds according to the present claims which have a free carboxylic acid or salt thereof. For example, Couturier discloses

Art Unit: 1796

compounds having alkyl esters (see col 2 lines 4-6), but not acids. Therefore, the rejection over Couturier has been withdrawn.

Conclusion

23. This action is properly final because the claims are rejected on the same grounds as set forth in the previous Office Action mailed on 26 February 2009. Accordingly, THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). See MPEP § 706.07(a).

24. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

25. This action is a final rejection and is intended to close the prosecution of this application. Applicant's reply under 37 CFR 1.113 to this action is limited either to an appeal to the Board of Patent Appeals and Interferences or to an amendment complying with the requirements set forth below.

Art Unit: 1796

26. If applicant should desire to appeal any rejection made by the examiner, a Notice of Appeal must be filed within the period for reply identifying the rejected claim or claims appealed. The Notice of Appeal must be accompanied by the required appeal fee.

27. If applicant should desire to file an amendment, entry of a proposed amendment after final rejection cannot be made as a matter of right unless it merely cancels claims or complies with a formal requirement made earlier. Amendments touching the merits of the application which otherwise might not be proper may be admitted upon a showing a good and sufficient reasons why they are necessary and why they were not presented earlier.

28. A reply under 37 CFR 1.113 to a final rejection must include the appeal from, or cancellation of, each rejected claim. The filing of an amendment after final rejection, whether or not it is entered, does not stop the running of the statutory period for reply to the final rejection unless the examiner holds the claims to be in condition for allowance. Accordingly, if a Notice of Appeal has not been filed properly within the period for reply, or any extension of this period obtained under either 37 CFR 1.136(a) or (b), the application will become abandoned.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RICHARD A. HUHNS whose telephone number is (571) 270-7345. The examiner can normally be reached on Monday to Friday, 8:30 AM to 6:00 PM EST.

Art Unit: 1796

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/R. A. H./
Examiner, Art Unit 1796

/Vasu Jagannathan/
Supervisory Patent Examiner, Art Unit 1796